UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,630	11/25/2003	Thomas J. Dinger	LOT920030021US1	7718

23550 7590 10/09/2008

HOFFMAN WARNICK LLC
75 STATE STREET
14TH FLOOR
ALBANY, NY 12207

EXAMINER	
GISHNOCK, NIKOLAI A	

ART UNIT	PAPER NUMBER
3715	

NOTIFICATION DATE	DELIVERY MODE
10/09/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hoffmanwarnick.com

Office Action Summary	Application No.	Applicant(s)	
	10/721,630	DINGER ET AL.	
	Examiner	Art Unit	
	Nikolai A. Gishnock	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3 and 5-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3 and 5-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *25 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

In response to Applicant's remarks filed 6/30/2008, claim 4 is cancelled. Claims 1-3 & 5-20 are pending.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-3 & 5-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. It is unclear where in the original specification support exists for the limitation, "outputting the hierarchical tree"; hence it would be unclear to one skilled in the art precisely what type of output is being claimed.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-3, 5, & 6 are rejected under 35 U.S.C. §101 as being directed to nonstatutory subject matter. The claims fail to produce a tangible effect. The requirement to be tangible is for the claim to produce a real-world result or beneficial product. The claims fail because they merely evaluate abstract functions and do not bring about a substantial application. The

limitations of "providing a hierarchical tree", "providing a learning competency", "performing an information rollup", "analyzing the hierarchical tree", "adding the.... node to a list of nodes", "consulting the list of nodes", "generating a control block", and "processing the control block", do not cause an output or other indication to a user that something has occurred. Further, the limitation, “outputting the hierarchical tree”, fails to provide tangibility as outputting to a user is not required by the instant claims. The "outputting" for example, might be to a database or other tree. If the claim does not entail transformation of an article, then the claim shall be reviewed to determine that it produces a useful, tangible, and concrete result. In making this determination, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, or concrete, but rather on whether the final result achieved by the claimed invention is useful, tangible, and concrete. If the claims are found not to have such a practical application, then the claim is determined to be nonstatutory. See MPEP 2106.

5. Claims 1-6 are rejected under 35 U.S.C. §101. In order to be considered patent eligible, a claimed process must contain sufficient ties to a machine, article of manufacture or a composition of matter. *In re Comiskey*, 84 USPQ2d 1670 (Fed. Cir. 2007). When an abstract concept has no claimed practical application, it is not patentable. The Supreme Court has reviewed process patents reciting algorithms or abstract concepts in claims directed to industrial processes. In that context, the Supreme Court has held that a claim reciting an algorithm or abstract idea can state statutory subject matter only if, as employed in the process, it is embodied in, operates on, transforms, or otherwise involves another class of statutory subject matter, i.e., a machine, manufacture, or composition of matter. In the instant case, the process fails to claim an apparatus, such as a computer, for performing the method.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-3 & 5-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cappellucci et al. (US 2003/0039949 A1), hereinafter known as Cappellucci, in view of Advanced Distributed Learning. ADL SCORM Version 1.3 Application Profile, Working Draft 0.9 [2002-11-27], hereinafter known as Advanced Distributed Learning.

9. Cappellucci teaches a computer-implemented method for performing branched rollup for shared learning competencies in a learning environment, comprising: providing a hierarchical tree corresponding to the learning environment (Para. 0053), wherein the hierarchical tree includes a parent node, a first branch having a first child node and a first grandchild node, and a second branch having a second child node and a second grandchild node (Para. 0054, Table 1; also, Figure 4, Items M6.16, parent node, and subsequent nodes); providing a learning competency in the learning environment that is shared by the first grandchild node and the second grandchild node (two other {information element's} data category items can be

correlated against the same MLO {Master Learning Objective}, Para. 0056); performing an information rollup (performing a correlation query, a process to find those information objects and elements that are correlated against a particular information object or element; the system finds all information object or object correlated against all MLOs which are state standards, correlated against lesson plans, and retrieves the information objects or elements searched for, both in Para. 0072) of the first child node (an MLO can be any node on the tree, Para. 0071) upon a change in state of the learning competency (the system allows a user to modify an existing information object or element, Para. 0063; in the event it is desirable to add information resources, each of these objects can be analyzed for content and other metadata categories and correlated to the MLOs quickly and efficiently, Para. 0059); and performing an information rollup of the second child node after performing the information rollup of the first child node (if no child MLOs are found the process can continue where the system can search for all sibling MLOs of the initial MLOs found, and the system tests to determine if any sibling MLOs were found, Para. 0074; also, Figure 8A, Items 822 & 824, and Figure 8B, Item 800); generating a control block for each of the first child node, the second child node and the parent node prior to the first performing step (meta data populating the data base of Para. 0076-0077 is generated when the information resource is input in the system, Para. 0077), wherein the control block for the parent node indicates that the information rollup of the first child node and the information rollup of second child node must both be performed prior to performing the information rollup of the parent node (the correlation data object {of the database identifying information resources} can include an MLO ID which identifies the MLO that information object is correlated to, Para. 0076; two data category items can be correlated against the same MLO, Para. 0056); and performing an information rollup of the parent node only after performing the information rollup of the first child node and the information rollup of the second child node, eliminating repeated

rollups of the parent node (if no sibling MLOs are found, the process can continue to where the system can search for all parent MLOs of the initial MLOs found, the system tests to determine if any parent MLOs were found, Para. 0074), and outputting the hierarchical tree (all information objects and elements available from the system can be presented to a user at the user's computer or printed on a user's printer or a system printer, Para. 0063) [Claim 1].

10. Cappellucci teaches a computerized system and a computer program product stored on a recordable medium for performing branched rollup for shared learning competencies in a learning environment, comprising: a list compilation system for generating a list of nodes that share a learning competency within a hierarchical tree corresponding to the learning environment (parsing system for establishing a correlation between information objects or elements and one or more MLOs, Para. 0066); a block generation system for generating control blocks for predecessors of the nodes in the list of nodes, wherein each of the control blocks identifies specific successors of the predecessors for which information rollups must be performed before information rollups of the predecessors can be performed (the system provides {correlation data object} tools which facilitate input of attributes of the information object or element, Para. 0077); and a node rollup system for processing the control blocks and performing the information rollups of the predecessors after performing the information rollups of the specific successors (correlation query process, Para. 0072-0074) [Claims 7 & 14].

11. What Cappellucci fails to explicitly teach is wherein the information rollups include communicating the change in state of the learning competency to node from which a predecessor depends [Claims 1, 7, & 14]. However, Advanced Distributed Learning teaches that a Rollup is defined as the process of evaluating the Objective and Attempt Progress data for a set of child activities to determine the Objective and Attempt Progress data for the parent, and where the Rollup Rules define a set of rollup control rules for describing this processes [sic]

(5.1.5 Rollup Rule Descriptions, page 5-18, first paragraph). Also, the example of Figure 5.1.5.6a, Rollup Rule Condition Illustration, further demonstrates communication of the state of the learning competency up a tree (Illustration 1 depicts a rollup rule that states all of the parent's (AA) children (AAA, AAB and AAC) activities have to be considered "satisfied", in order for its parent (AA) to be considered satisfied, Page 5-22, first paragraph). The rollup of Cappellucci would evaluate the progress data of a child node, according to the rule as taught by Advanced Distributed Learning, to determine the progress of the parent; this function causes the evaluation to be communicated to the parent. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, for the information rollup of Cappellucci to communicate the change in state of the learning competency of a grandchild node to its parent node, in the manner that information rollups are performed, as taught by Advanced Distributed Learning, in order to ensure that all the child learning competencies are satisfied before the parent node is completed, improving reliability of the course sequencing so that a child learning competency may not be skipped [Claims 1, 7, & 14].

12. Cappellucci teaches analyzing the hierarchical tree to identify the second grandchild node as sharing the learning competency with the second grandchild node (information objects are analyzed for content and other metadata categories correlated to the MLOs, Para. 0059; data category items can be correlated against the same MLO, Para. 0056; an MLO can be any node on the tree, Para. 0071; it is inherent that MLOs can be first and second grandchild nodes); and adding the second grandchild node to a list of nodes (the system can include a separate database for identifying each type of information resource and new types of resource can be added as necessary, Para. 0077) prior to performing the information rollup of the first child node (as in Para 0074 and Figures 8A & 8B; in this case the rollup of a second grandchild

node {a sibling node to a first grandchild} is performed prior to the child node {the parent of the grandchild nodes}, case being where the child is the initial MLO found) [Claim 2].

13. Cappellucci teaches consulting the list of nodes prior to performing the information rollup of the second child node (data structure can form part of a database that stores the meta data and is used in queries to find information objects and elements, Para. 0076; this meta data can be derived from available data when the information resource is input into the system, Para. 0077, the testing steps of Para. 0074 are consulting the correlation database of Para. 0076-0077 prior to each level of search) [Claim 3].

14. Cappellucci teaches processing the control block for the first child node prior to performing the information rollup of the first child node; processing the control block for the second child node prior to performing the information rollup of the second child node; and processing the control block for the parent node prior to performing the information rollup of the parent node (the system tests to determine if any child, sibling or parent MLOs were found, then continues to the next level, as in Para. 0074) [Claim 5].

15. Cappellucci teaches wherein the hierarchical tree comprises a parent node, a first branch having a first child node and a first grandchild node, and a second branch having a second child node and a second grandchild node (Para. 0054, Table 1; also, Figure 4, Items M6.16, parent node, and subsequent nodes) [Claims 8 & 15].

16. Cappellucci teaches wherein the learning competency is shared by the first grandchild node and the second grandchild node, wherein the first child node and the parent node are the predecessors of the first grandchild node, and wherein the second child node and the parent node are the predecessors of the second grandchild node (information objects are analyzed for content and other metadata categories correlated to the MLOs, Para. 0059; data category items can be correlated against the same MLO, Para. 0056; an MLO can be any node on the tree,

Para. 0071; it is inherent that MLOs can be parent nodes, child nodes, and first and second grandchild nodes, as in Figure 4) [Claims 9 & 16].

17. Cappellucci teaches wherein the information rollup of the parent node is performed only after the information rollup of the first child node and the information rollup of the second child node are performed (if no child MLOs are found the process can continue where the system can search for all sibling MLOs of the initial MLOs found, and the system tests to determine if any sibling MLOs were found, Para. 0074; also, Figure 8A, Items 822 & 824, and Figure 8B, Item 800; if no sibling MLOs are found, the process can continue to where the system can search for all parent MLOs of the initial MLOs found, the system tests to determine if any parent MLOs were found, Para. 0074) [Claims 10 & 17].

18. Cappellucci teaches wherein the learning environment is implemented in a computerized environment (Para. 0062) [Claims 6, 11, & 18].

19. Cappellucci teaches wherein the information rollups of the first child node, the second child node and the parent node are performed a maximum of one time for a change in state of the learning competency (the system allows a user to modify an existing information object or element, Para. 0063; in the event it is desirable to add information resources, each of these objects can be analyzed for content and other metadata categories and correlated to the MLOs quickly and efficiently, Para. 0059; a correlation query is a process to find those information objects and elements that are correlated against a particular information object of element, Para. 0072; also Figures 6 & 7; the correlation query is used to analyze the information objects and elements when existing information objects or elements are modified), [Claims 12 & 19].

20. Cappellucci teaches wherein the list of nodes is generated, the control blocks are generated and processed, and the information rollups are performed upon a change in state of the learning competency (parsing, input of object meta data into database, and correlation query

performed {analysis for content and other meta data categories and correlation to the MLOs} in the event that information resources are added, Para. 0059, or an existing information object is modified, Para. 0063) [Claims 13 & 20].

Response to Arguments

21. Applicant's arguments filed 6/30/2008 have been fully considered but they are not persuasive.

22. In response to Applicant's arguments that the rejection of claims under 35 USC 101 is not proper, because an information rollup process has a tangible effect, an information rollup, as best understood, is a data operation by which information is communicated up the nodes of a hierarchical tree. A control block, as best understood, is further computer data generated for tracking the state of nodes as information rollup is performed. The result of the aggregation and tracking of such data is itself data, and is neither a *physical* or *tangible* result nor *transformation of a physical object*, and thus does not fall within the bounds of statutory subject matter as claimed. A rollup of information is neither a physical nor a tangible result. Further, the claimed method does not require an apparatus to perform the method, such as a computer, and appears to be capable of being performed in the human mind. Therefore, the rejection of claims 1-3, 5 & 6 under 35 USC 101 is proper.

23. In response to the Applicant's arguments that the Cappellucci reference fails to teach every element of the claimed invention, see page 9, the Cappellucci reference teaches a system for information correlation, which is defined as " a table which *links* each information resource, object or element to each other related information resource, object or element based upon predefined criterion" (Para. 0007). As best understood, this information is organized in hierarchical trees (Para. 0054). Thus, the correlation of Cappellucci is best understood to be a

process of linking related information resources in a hierarchical tree. Further, the sequence of process steps for performing a correlation query, which is understood to be the process of searching for related information needing to be linked, is understood as first searching the child nodes to be linked, then the sibling nodes, then lastly, the parent nodes (Para. 0074). Thus the process of Cappellucci "rolls up" child and sibling nodes *before* parent nodes. The purpose of this order *is noted* by Cappellucci for avoiding repeated rollups of information (One of the benefits of the present system is that even with the manual process, the correlation step *need only be performed once* when the new information is added as compared with the free from information model where each new information object or element would have to be correlated with each existing information resource of the system, Para. 0066, emphasis added). Thus, the argument is not persuasive because Cappellucci teaches all the limitations of Claims 1-3 & 5-20.

Conclusion

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolai A. Gishnock whose telephone number is (571)272-1420. The examiner can normally be reached on M-F 8:30a-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

9/30/2008
/N. A. G./
Examiner, Art Unit 3714

/XUAN M. THAI/
Supervisory Patent Examiner, Art Unit 3714